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FEDERAL COMMUNICATIONS COMMISSION
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BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of	
Implementation of the Local Competition Provisions of the Telecommunications Act Of 1996	CC Docket No. 96–98
Inter–Carrier Compensation for ISP–Bound Traffic	CC Docket No. 99–68

COMMENTS
of the
GENERAL SERVICES ADMINISTRATION

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Summary

GSA addresses issues concerning inter–carrier compensation for traffic bound to Internet service providers ("ISPs"). GSA explains that the Commission's rules concerning compensation for this traffic will determine the availability of services that permit government agencies, businesses, and individuals to communicate and obtain information through a worldwide network of interconnected computers.

Carriers responding to requests for comments on the appropriate jurisdiction for ISP–bound traffic explain that it is not possible to distinguish "intrastate" from "interstate" messages on the Internet. Therefore, GSA urges the Commission to reaffirm its previous finding that this traffic is jurisdictionally mixed, and exercise its role in establishing the framework for inter–carrier compensation arrangements for these communications.

Also, GSA explains in these Comments that while many messages to ISPs traverse state boundaries, these firms should not be subject to interstate access charges. ISPs pay for network access through monthly subscriber line charges ("SLCs") at the maximum rate applicable to any group of end users. Additional access charges are not necessary, and they could significantly increase the costs to end users for Internet access.

Finally, GSA explains that reciprocal compensation plans for local voice traffic developed in proceedings before state regulatory agencies should not be used for Internet messages. GSA urges the Commission to retain authority over inter–carrier compensation plans to ensure that the plans reflect the unique characteristics of Internet traffic, help foster development of the Internet, and protect the interests of end users. As an initial step, GSA recommends that the Commission prescribe guidelines for inter–carrier compensation for Internet messages.

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COMMENTS
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GENERAL SERVICES ADMINISTRATION

The General Services Administration ("GSA") submits these Comments on behalf of the customer interests of all Federal Executive Agencies ("FEAs") on the Public Notice ("Notice") released on June 23, 2000. The Notice seeks comments and replies on issues concerning inter–carrier compensation for message traffic bound to Internet Service Providers ("ISPs").

I. INTRODUCTION

Pursuant to Section 201(a)(4) of the Federal Property and Administrative Services Act of 1949, as amended, 40 U.S.C. 481(a)(4), GSA is vested with the responsibility to represent the customer interests of the FEAs before Federal and state regulatory agencies. From their perspective as end users, the FEAs have consistently supported the Commission's efforts to bring the benefits of competitive markets to consumers of all telecommunications services.

On February 26, 1999, the Commission released a Declaratory Ruling to address issues concerning charges for traffic bound to ISPs ("Declaratory Ruling).[1] In the Declaratory Ruling, the Commission concluded that ISP–bound traffic is jurisdictionally mixed, and therefore not subject to the reciprocal compensation provisions for local telecommunications services in the 1996 Act.[2]

The Commission simultaneously released a Notice of Proposed Rulemaking ("Rulemaking Notice") asking parties to submit comments and replies on findings in the Declaratory Ruling and other issues concerning inter–carrier compensation for ISP–bound traffic. GSA responded to the Rulemaking Notice by submitting Comments on April 12, 1999 and Reply Comments on April 27, 1999. In those submissions, GSA concurred with the Commission that traffic bound to ISPs is jurisdictionally mixed, but urged the Commission not to subject ISPs to interstate access charges in addition to those they now pay.[3]

On March 24, 2000, the Court of Appeals for the District of Columbia Circuit vacated several provisions of the Declaratory Ruling.[4] In remanding the matter, the court stated that the Commission should reconsider its jurisdictional analysis and its findings that ISPs should not be subject to reciprocal compensation rules.[5]

1 Notice, p. 1, citing *In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Inter–Carrier Compensation for ISP–Bound Traffic*, Declaratory Ruling in CC Docket No. 96–88 and Notice of Proposed Rulemaking in CC Docket No. 99–68, FCC 99–38, 14 FCC Rcd 3689 (1999).

2 *Id.*, at 3690, 3695–3703, citing Telecommunications Act of 1996, Pub. L. No. 104–104, 110 Stat. 56, codified at 47 U.S.C. § 151 *et seq.* ("1996 Act"), at §251(b)(5).

3 Comments of GSA, April 12, 1999, pp. 3–10; and Reply Comments of GSA, April 27, 1999, pp. 3–7.

4 *Bell Atl. Tel. Companies v. F.C.C.*, 206 F.3d 1 (D.C. Cir.)

5 *Id.*, at 3–6.

In the instant Notice, the Commission seeks to develop the record in response to the court's direction by obtaining views of parties on the jurisdictional nature of ISP-bound traffic.[6] Also, the Commission seeks comments on the application of the reciprocal compensation requirements of section 251(b)(5) of the 1996 Act to this traffic.[7]

II. THE COMMISSION CORRECTLY CONCLUDED THAT ISP–BOUND TRAFFIC IS JURISDICTIONALLY MIXED.

In the circuit–switched network used for voice and data communications, a call originating and terminating in the same state is jurisdictionally "intrastate," while a call originating in one state and terminating in another state or outside the U.S. is jurisdictionally interstate.[8] These distinctions do not hold for Internet traffic because communications with ISPs do not have unique "termination" points.[9]

Internet messages are divided into "packets" that are individually routed over a "packet switched" network to their ultimate destination. Different packets in the same message may travel over different physical paths, allowing callers to invoke multiple Internet services simultaneously, and also allowing callers to access information with no knowledge of the physical locations of the computers where the information resides.[10] Because of these characteristics, a user may access websites that reside on servers in various jurisdictions, or communicate on–line with users who are geographically dispersed among many locations, during a single Internet session.[11]

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6 Notice, p. 2.

7 *Id.*

8 Declaratory Ruling, para. 18.

9 *Id.*

10 *Universal Service Report to Congress*, 13 FCC Rcd at 11531, 11532.

11 *Id.*

Indeed, even the contents of a "single website" may be stored on multiple servers, some located in the caller's home state, and others in widely separated parts of the nation.[12]

Comments in response to the Rulemaking Notice explain that separation of ISP–bound calls between interstate and intrastate components would be impossible. For example, the Information and Technology Association of America ("ITAA") explains that no party — the end user, the ISP, or the serving local exchange carrier ("LEC") — has the ability to determine the locations of the computer servers accessed during an on–line session.[13]

GTE Service Corp. ("GTE") and other commenters concur that it is not possible to distinguish interstate and intrastate Internet transmissions because of the multi–tasking capabilities of computer operating systems.[14] Also, these commenters observe that no party has offered a viable method for gauging the relative interstate and intrastate traffic volumes over the Internet.[15]

Several parties simply assert that ISP–bound messages are predominantly local and therefore should be considered intrastate for regulatory purposes.[16] However, the positions advanced by these parties are unsubstantiated with data. Moreover, after examining claims that ISP–bound traffic "may be" significantly local, the Commission reached the opposite conclusion.[17]

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12 *Id.*

13 Comments of the ITAA, April 12, 1999, pp. 3–5.

14 Reply Comments of GTE, April 27, 1999, pp. 19–20; and Comments of the Wisconsin State Telecommunications Association, April 12, 1999, p. 1.

15 *Id.*

16 See, for example, Comments of Focal Communications ("Focal"), April 12, 1999, pp. 16–17; and Comments of Global NAPS, April 12, 1999, p. 9, n. 19.

17 Declaratory Ruling, para. 18.

In short, the appropriate jurisdiction for an individual ISP–bound message cannot be determined. In the aggregate, much of the traffic is interstate. From GSA's perspective, these facts necessitate continuation of the Commission's important role in establishing inter–carrier compensation arrangements for these communications.

III. THE COMMISSION SHOULD FIND THAT LOCAL EXCHANGE CARRIERS DO NOT REQUIRE ADDITIONAL COMPENSATION FOR INTERNET TRAFFIC.

A. Information service providers pay access charges as end users of interstate telecommunications services.

Although Internet traffic is jurisdictionally mixed, ISPs should not be subject to the system of access charges prescribed by the Commission. ISPs are meeting their proportionate obligations to cover the costs of interstate access under the Commission's existing rules. ISPs — like all other telecommunications end users — pay for access to the public switched network through monthly subscriber line charges ("SLCs") on the facilities they obtain from the local exchange carriers ("LECs").

As explained in the Declaratory Ruling, ISPs are considered to be end users in assessing obligations for interstate access charges.[18] Thus, the Commission permits these firms to obtain their links to the public switched network through intrastate local exchange tariffs, rather than interstate access tariffs. Through these arrangements, ISPs pay business local exchange service rates and the associated SLCs for any switched access connections to LECs' central offices.

ISPs described the access arrangements that they use in a study submitted to the Commission in 1997.[19] In this submission, the ISPs explained that they are

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18 *Id.*, para. 5.

19 *In the Matter of Deployment of Wireline Service Offering Advanced Telecommunications Capability*, CC Docket No. 98–147 *et al.*, "The Effect of Internet Use on the Nation's Telephone Network," study submitted with the comments of Internet Access Coalition, January 22, 1997, pp. 13–15.

connected to the LECs' switches through the same types of dedicated access facilities that are used by other large business subscribers. In most cases, network access is through 1.544 Mbps facilities that provide twenty-four 64 kbps channels over a fiber optic cable or copper pairs.

Various rate plans are used by local exchange carriers to recover the costs of the access facilities.[20] For example, an ISP may lease 24 lines at the rates applicable to digital trunk groups or at the rates specified for an Integrated Switched Digital Network ("ISDN") primary rate interface. In all cases, the Commission's access charge rules require application of the interstate SLC to each access channel.

An ISP deriving multiple channels from a DS–1 is required to pay the full interstate SLC for each transmission path. In the first six months of 2000, the per–line SLC for multi–line business customers of price cap carriers averaged $6.98 a month, which is more than twice the $3.50 monthly charge for primary residence and single business lines.[21] Indeed, ISPs are already paying more than their share, and they should not be subject to additional access charge obligations.

B. Additional access charges could significantly increase the costs of Internet access.

Intense competition among ISPs has lead to reasonable pricing levels, and has allowed consumers to access the Internet on a dial–up basis with no incremental charges for using the existing telephone network. Internet growth resulting from low–cost access has enabled ISPs to offer services that are vital to government agencies in performing their functions. These services provide a means for Federal employees to communicate with each other and the general public. The services allow Federal

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20 *Id.*

21 Common Carrier Bureau, Industry Analysis Division, "Trends in Telephone Service," March 2000, Table 1.3.

employees to access relevant data available from tens of thousands of outside sources. Current low costs also promote the general public's access to information posted on Federal agency websites.

To continue the growth of Internet services, it is important for the Commission to continue to forbear from applying interstate access charges to ISPs. Indeed, ISPs should not be subject to traffic–sensitive access charges or flat monthly charges such as the Presubscribed Interexchange Carrier Charge ("PICC"). Access charges could have an impact on the costs of Internet services.

Many ISPs offer unlimited Internet access on a "dial–up" basis over a telephone line for about $20 a month. Although most business users connect to the Internet through dedicated broadband access facilities, rather than dial–up connections, the equivalent monthly cost is nearly the same. For example, an ISP typically charges a business user about $600 per month for T-1 access, which is $25 per month for each of 24 "voice grade" connections.

In the first half of 2000, the average interstate access charge was 2.85 cents per conversation minute.[22] With an Internet connection time of only three hours per week, this average charge equates to about $22 per month. Thus, application of the average per–minute charge could double the $20 to $25 monthly cost of Internet service for residence and business users with moderate connection times.

In modifying the access charge structure for LECs under price cap regulation, the Commission correctly recognized that most costs for access to the switched network are fixed and do not depend on traffic volumes. The ISPs now pay the interstate SLCs that have this usage–independent cost–based structure. Moreover, additional access charges could impact the access charges for end users. Therefore,

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22 *Id.*, Table 1.4.

GSA urges the Commission to make no changes in the level or structure of access charges for ISPs.

IV. ISP–BOUND MESSAGES SHOULD NOT BE SUBJECT TO RECIPROCAL COMPENSATION PLANS.

A. Internet traffic is fundamentally different from local voice traffic.

Incumbent and competitive LECs develop inter–carrier compensation arrangements for local telecommunications traffic through a negotiation process under the oversight of state regulatory authorities. In most cases, the negotiations produce a "reciprocal compensation" arrangement.

While reciprocal compensation plans may be appropriate for most local voice communications, they should not be employed for ISP–bound messages. In addition to the fact that ISP–bound calls are not properly considered "local" messages, ISP–bound traffic is structurally different from conventional local voice traffic in several important respects.

Distinctions between Internet and voice messages concern the average length of the calls and the directional characteristics of the traffic. In the first place, the average holding times for Internet traffic are much greater. Studies show that the average local call is approximately 3.5 minutes in duration, but the average Internet connection is about 26 minutes.[23]

Secondly, ISPs do not originate calls, so that Internet traffic is unidirectional. During the entire length of an Internet session — which is many times greater that the duration of a local telephone call — the message is <u>one–way</u> from an inter–carrier compensation viewpoint. During the entire time that an end user is "downloading" and

23 Reply Comments of Ameritech, April 27, 1999, p. 6.

"bits" are flowing from the ISP to the end user, the message is "terminating" for the LEC serving the ISP and "originating" for the LEC serving the end user. Therefore, reciprocal compensation arrangements with per–minute payments that are employed for voice traffic will substantially skew payments and over–compensate LECs that are providing local services to ISPs.

Additional distinctions between Internet and voice traffic relate to the cost characteristics of the switches that are employed. Although a packet transmission network is generally implemented on the network side of the ISP, splitting techniques are being introduced that enable separation of voice and Internet traffic on the customer side. With these techniques, Internet traffic is routed over a local packet network, while voice messages are routed through circuit switches.

Because of differences between packet and circuit switches and other factors, inter–carrier compensation plans applicable to voice traffic will not reflect the cost characteristics of Internet messages. Theoretically, the differences in cost relationships could be addressed in reciprocal compensation agreements, but it is unlikely that arrangements developed through an unfettered negotiating process would produce compensation agreements that minimize the costs of Internet use by end users.

Parties responding to the Rulemaking Notice point to additional reasons why reciprocal compensation for ISP–bound traffic would be inconsistent with the Commission's policies. For example, one carrier explains that reciprocal compensation for this traffic could impede the development of local competition, lead to irrational pricing, and discourage investment in advanced services.[24]

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24 *Id.*, pp. 24–29.

In summary, development of efficient inter–carrier compensation plans for ISP–bound traffic is a difficult but critical task. GSA urges the Commission to retain authority over these plans to ensure that they recognize the unique characteristics of Internet traffic, help foster development of the Internet, and protect the interests of end users.

B. The Commission should prescribe guidelines concerning compensation for carriers transporting Internet messages.

GSA urges the Commission to develop guidelines for inter–carrier compensation plans. The guidelines should recognize the unique topographical and cost characteristics of ISP–bound traffic, and ensure that no additional financial obligations are placed on ISPs for network access facilities.

The guidelines should address both the structure and the cost basis for inter–carrier charges. Economically efficient inter–carrier compensation plans should reflect the structure of the underlying costs as nearly as possible. For example, usage–dependent rates should not be used to recover the costs of resources that do not vary significantly with traffic volumes. Use of traffic–sensitive rate structures to recover costs that are not variable will impair development of additional Internet services and lead to higher costs for all users.

In addition to requiring rate structures that match costs, the guidelines should also address the nature of the costs to be employed as the standard in setting rates. In its previous Comments in this proceeding, GSA explained that Total Element Long Run Incremental Costs ("TELRIC") are the only economically appropriate measure for interconnection services.[25]

[25] Comments of GSA, April 12, 1999, pp. 12–14.

Incremental costs are appropriate because they simulate the prices that would prevail in a competitive market, help prevent incumbent LECs from exploiting their market power at the expense of competitive LECs, and create the incentives for provision of any additional resources that are required.[26] To accomplish these objectives, costs should be based on the most efficient network architecture, sizing, technology and operating structure that are feasible and available in the industry. Although the Commission has enunciated these requirements in setting pricing standards for unbundled network elements ("UNEs"), the guidelines for inter-carrier compensation for ISP–bound traffic should reiterate the requirements for rates based on costs to ensure that they are employed for this important component of telecommunications services.

26 *Id.*

V. CONCLUSION

As a major user of telecommunications services, GSA urges the Commission to implement the recommendations set forth in these Comments.

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CERTIFICATE OF SERVICE

I, MICHAEL J. ETTNER, do hereby certify that copies of the foregoing "Comments of the General Services Administration" were served this 21st day of July, 2000, by hand delivery or postage paid to the following parties.

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